

em o r a n d u m

Date : December 15, 2000

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bject : **THREE MOUNTAIN POWER PROJECT ~ Staff s Responses to BRG's Cross
Examination on Public Health Errata for Noise**

Attached is staff s Responses the Burney Resource Group s cross examination of staff Public Health Witness, Obed Odoemelam. Also enclosed is a replacement figure for the Noise Supplemental Testimony filed on December 7, 2000. Staff is working on errata to its conditions of certification for Soil & Water Resources, which will be filed tomorrow.

If you have any questions please call me at (916) 653-1614, or email me at rbuell@energy.state.ca.us.

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PUBLIC HEALTH

Responses to Burney Resources Group's Cross Examination Questions Testimony of Dr. Obed Odoemelam

1. *Under cumulative impacts on page 118, you state: When toxic pollutants are emitted from multiple sources within a given area, the cumulative, or additive impacts of such emissions could, in concept, lead to significant health impacts within the population, even when such emissions are emitted at insignificant from the individual sources involved*

Question: Are you aware of how many stationary sources of pollutants there are in the Burney basin?

Answer: Yes I am. For the Three Mountain Power Project our Air Quality staff prepared an inventory of the major area sources of air pollutants to investigate whether any significant changes to the existing air quality have or are likely to occur. This inventory is reflected in the data in Air Quality Table 3 in staff's Air Quality testimony (Final Staff Assessment, Part 2) for this project.

2. **Question:** Have you reviewed the 1998 Emissions Inventory for the County of Shasta?

Answer: Yes I have. This review was originally made by our air quality staff.

3. *Reference to page 114 of testimony: It stated that the Burney Basin is in compliance with federal air quality standards (with the noted exception of the state's PM10 standard in the winter months).*

Question: How did you arrive at this conclusion?

Answer: My conclusion is based on information from our Air Quality staff as specifically addressed on pages 25 and 26 of our Air Quality staff's FSA Part 2.

4. *Dr. Fox submitted a letter dated February 7, 2000, addressed to Richard Buell with TMPP's calculated acute hazard index for the facility at 0.5624. The letter is from Lisa Cottle to Lizanne of Adams Broadwell & Cardozo, dated January 21, 2000 in response to CURE data request 76.*

Question: Did you or anyone on staff calculate the acute hazard index of the Three Mountain Project? If so, what was the acute hazard index for the facility?

Answer: Staff did not calculate a separate acute hazard index but evaluated the applicant's calculated values including assessing compliance with well characterized modeling approaches approved by staff for Three Mountain and similar projects. Details of the modeling exercise were provided to staff for validation. Given the uncertainties in the underlying evaluative process, staff considers the applicant's estimated acute index value of 0.0385 as adequately representative of the potential for the acute health effects at issue. CURE's

calculated value of 0.5624 (which CURE noted to be mainly related to the effects of acrolein) is a demonstrable overestimation deriving from CURE's presently unique adjustments to correct for what they regard as errors in how acrolein-related health risks are presently assessed. CURE's approach has not been approved by any of the California state agencies responsible for the accuracy of existing assessment guidelines.

5. **Question:** *If so, what was the acute hazard index for the facility?*

Answer: See the response to number 4 above.

6. **Question:** *You did not do a background concentration evaluation of criteria pollutants, is that correct?*

Answer: Yes it is. I did not quantitatively consider background concentrations for criteria pollutants because the total acute hazard index for the project's non-criteria pollutants at issue did not exceed 0.5 as required in the guidelines before such consideration.

7. **Question:** *Is it correct that CAPCOA's Air Toxics Hot Spots Program, Revised 1992 Risk Assessment Guidelines, October 1993 p. III-38 states if the acute hazard index for a facility exceeds 0.5, that background concentrations of criteria pollutants should be used to calculate a second total acute hazard index (i.e., the facility's contribution plus background) ?*

Answers: Yes. However, it appears that this provision is largely a dead letter in risk analysis as it is performed in California. It is important to keep in mind that the CAPCOA Guidelines are in fact guidelines; they are not adopted and do not have the force of law. The State Office of Environmental Health Hazards Assessment (OEHHA) has told staff that this guidance provision is not observed by lead agencies in the risk assessment that they have reviewed, including those of the local districts. There is more information on this in the applicant's testimony of Dr. Valerie Thompson, dated February 22, 2000, pages 3 and 4.

8. **Question:** *Without current background levels of non-criteria pollutants, how did you arrive at a hazard index value of 0.08?*

Answer: The chronic non-cancer hazard index of 0.08 should be correctly seen as reflecting the relative contribution of the proposed project to the area's levels of the toxic pollutants addressed in our Public Health section. Given the absence of major sources of toxic air pollutants as noted in staff's Public Health testimony and reflected, for example, in the noted low levels of the area's VOC (see page 24 of Part 2 of Air Quality staff's testimony), these pollutants are unlikely to be encountered at significant levels in the project area. Therefore, staff did not consider it necessary to require the applicant to conduct background measurements for use in our Public Health assessment. Staff believes CURE's findings of significant background concentrations to be directly due to their unique method of assessing the concentrations and health risks from exposure to acrolein. This approach has not been approved by either the ARB or OEHA. Without this

approach, no background levels of potential health significance would be found. Even without the complicating aspects of the acrolein issue, CURE has further failed to show how they were able to establish representative background data for the project area based on information from other areas.

9. **Question:** *How did you arrive at the maximum impact location approximately 2.5 miles in an unpopulated area south of the boundary?*

Answer: The point of maximum impact was identified through air dispersion modeling conducted by the applicant using the modeling protocol specified and verified by our Air Quality staff.

10. **Question:** *If air dispersion modeling was used, was data from Brush Mountain CDF weather station used in the program or default data used or were both default and Brush Mountain data used?*

Answer: Question about meteorological data input into our modeling runs would be best answered by our Air Quality staff.

11. **Reference:** *Page 116, it is stated A background hazard index of 1.82 was calculated for PM10 pointing to the need to prevent further additions in the problem winter periods at issue . You refer to the mitigation AQ-20 through AQ 22. With specific reference to AQ-21 and the voluntary woodstove programs.*

Question: *If the 25% offsets of the Project s PM10 emissions are not achieved by this voluntary woodstove replacement program within the community of Burney and Johnson Park, would the emissions from the project in addition to current levels of PM10 present in the basin, present a health hazard under either state or federal LORS?*

Answer: The hazard index of 1.82 was presented by the Public Health staff to quantitatively point to the need for specific mitigation in the face of an existing health hazard. Comparing the project-related hazard index with this existing hazard was one of the things done by the Air Quality staff in establishing the proportionate mitigation to be required of the applicant. If the wood stove emission reductions were not achieved, the project would contribute emissions to the existing PM10 levels reflected in the hazard index value. However, the Air Quality staff, based on comments received at Burney workshops, believes that such mitigation has a high likelihood for success. Such mitigation would be by far the most effective type of public health mitigation for the local community, as it should directly reduce combustion PM10 near the ground level that would be more likely inhaled than from the project s stacks.

12. **BRG submitted documents from Shasta County concerning the Hat Creek Project, Eastern Aggregates. This project has passed the County Planning Commission, who approved Use Permits in November 30, 2000.**

Question: *Have you seen these documents?*

Answer: Yes I have

13. **Question:** *If so, would you consider this project a significant source of pollutants within the 6-mile radius of the Three Mountain Project?*

Answer: The air quality and public health impacts of the proposed Hat Creek Projects were analyzed in an EIR. The incremental cancer risk posed by its carcinogenic pollutants was calculated as equivalent to 0.1 cancers in a million, an impact small enough to be considered de minimis. Air districts generally use the threshold of 10 in a million as trigger for public notification regarding carcinogenic emissions (Eastside Aggregate Project, Final EIR, Response to Comment 14-52). The project will not violate state or federal standards (id. Response to Comment 14-63) and has emissions not high enough to trigger offset requirements (id, Response to Comment 14-67).

NOISE ERRATA

Testimony of Steve Baker

The attached figure should replace the figure show on page 13 of the Supplemental Noise Testimony filed on December 7, 2000.

**Measured Noise Levels
Murray Residence
December 3-5, 2000**

